



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,464	03/25/2004	Toshiki Taguchi	Q80689	6283
23373	7590	01/25/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			KLEMANSKI, HELENE G	
			ART UNIT	PAPER NUMBER
			1755	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,464

Applicant(s)

TAGUCHI ET AL.

Examiner

Helene Klemanski

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/25/04&7/27/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The references cited in the Search Report dated June 30, 2004 have been considered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, the phrase "selected from" is considered indefinite since this is improper Markush language. It is the examiner's position that other materials could be present in the Markush group that were not intended by applicants by the use of the phrase "selected from" since this phrase does not exclude other materials. The examiner suggests the language "selected from the group consisting of" in place of this phrase.

In claim 8, the term "using" is indefinite. A "process" defined in the sole terms of "using" does not define patentable subject matter under 35 USC 101. See *In re Fong*, 129 U.S.P.Q. 264 (CCPA 1961). The examiner suggests incorporating ink jet recording steps into this claim to overcome the rejection.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 4, 6, 8 and 12 of U.S. Patent No. 6,939,399. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said patent claims and would be obvious thereby.

6. Claims 1-4 and 6-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5 and 6 of copending Application No. 10/809,955 (US 2004/0187733). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Art Unit: 1755

7. Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 10, 11 and 14-16 of copending Application No. 10/806,424 (US 2004/0194660). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8. Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 9, 10, 13 and 14 of copending Application No. 10/807,442 (US 2004/0200385). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 6, 8, 10, 12 and 13 of copending Application No. 10/802,797 (US 2004/0246321). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 7, 8 and 11 of copending Application No. 10/805,251 (US 2005/0001890). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are generic to said copending claims and would be obvious thereby.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

In the above U.S. Patent and copending Application's, it is the examiner's position that it would have been obvious to one having ordinary skill in the art that the ratio k_1/k_2 of the accelerated fading rate constant (k_1) of an image drawn by using said constituent ink alone to the accelerated fading rate constant (k_2) of a mixed color image drawn by using all the constituent inks constituting said ink set in equivalent amounts with the same density measurement light as in the measurement of k_1 is 0.7 since the dyes of the above U.S. Patent and copending Application's are the same structure as those claimed (and disclosed) by applicants.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1755

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-8 are rejected under 35 U.S.C. 102(a) as being anticipated by EP

1340796.

EP 1340796 teaches an ink set comprising a yellow ink containing at least one yellow dye, a magenta ink containing at least one magenta dye and a cyan ink containing at least one cyan dye wherein the oxidation potential of the magenta dye and the cyan dye is higher (i.e. more positive) than 0.8 V (vs SCE). The yellow, magenta and cyan dyes all contain at least one heterocyclic group and/or have at least one bond selected from the group consisting of –SO– or –SO₂–. The yellow and magenta dyes are azo dyes and the cyan dye is a phthalocyanine dye. EP 1340796 also teaches that yellow dyes inherently have a high oxidation potential. The ink can be prepared by dissolving or dispersing the dye in an aqueous medium. EP 1340796 further teaches an ink jet recording method comprising ejecting the above ink set onto a recording medium. See page 3, lines 53-56, dye of General Formula (M-1), dye of General Formula (C-1), dye of General Formula (Y-1), page 6, lines 4-25, page 7, lines 7-31, page 14, line 10 – page 16, line 17, dyes on pages 19-39, page 40, lines 28-31, page 41, lines 15-17, page 44, lines 45-47, examples 1 and 3, Table 1, Table 2b, Table 4 and

Art Unit: 1755

claims 1, 3-5, 7, 9 and 13. The ink set as taught by EP 1340796 appears to anticipate the present claims.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

12. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Takashima et al. (US 2004/0246321).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Takashima et al. teach an ink set comprising a yellow ink containing at least one yellow dye, a magenta ink containing at least one magenta dye and a cyan ink containing at least one cyan dye wherein the oxidation potential of the magenta dye is higher (i.e. more positive) than 0.8 V (vs SCE). It is preferable that the cyan dye also has an oxidation potential of higher than 0.8 V (vs SCE). The yellow, magenta and cyan dyes all contain at least one heterocyclic group and/or have at least one bond selected from the group consisting of $-\text{SO}-$ or $-\text{SO}_2-$. The yellow and magenta dyes are azo dyes and the cyan dye is a phthalocyanine dye. Takashima et al. also teach that yellow dyes inherently have a high oxidation potential. The ink set may further include a

black ink containing a black dye with an oxidation potential of higher than 0.8 V (vs SCE). The ink can be prepared by dissolving or dispersing the dye in an aqueous medium. Takashima et al. further teach an ink jet recording method comprising ejecting the above ink set onto a recording medium. See para. 0022, paras. 0028-0029, para. 0039, para. 0043, paras. 0047-0048, dye of Formula (M-1), dye of Formula (C-1), para. 0120, para. 0149, the dyes on pages 12-30, paras. 0155-0160, example 1, Table 1 and claims 1-3, 6, 8, 10, 12 and 13. The ink set as taught by Takashima et al. appears to anticipate the present claims.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

13. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Taguchi et al. (US 2005/0001890).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Taguchi et al. teach an ink jet ink set comprising at least two inkjet inks having the same color hue but different dye concentrations and each inkjet ink comprising water, a water-soluble organic solvent, a dye having an oxidation potential more positive

Art Unit: 1755

than 1.0 V (vs SCE) and a betaine compound. The dye contains at least one heterocyclic group and/or has at least one bond selected from the group consisting of –SO– or –SO₂–. The dyes are azo dyes or phthalocyanine dyes and can be magenta, yellow, cyan or black in hue. Taguchi et al. further teach an ink jet recording method comprising ejecting the above ink set onto a recording medium. See para. 0011, paras. 0018-0019, para. 0022, para. 0043, para. 0046, para. 0049, paras. 0055-0056, the dyes on pages 11-17, para. 0105, para. 0108, the dyes on pages 23-30, para. 0183, para. 0190, the examples and claims 1, 7, 8 and 11. The ink set as taught by Taguchi et al. appears to anticipate the present claims.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

14. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Yabuki (US 6,939,399).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Yabuki teaches an ink set comprising a yellow ink containing at least one yellow dye, a magenta ink containing at least one magenta dye and a cyan ink containing at

Art Unit: 1755

least one cyan dye wherein the oxidation potential of the magenta dye and the cyan dye is higher (i.e. more positive) than 0.8 V (vs SCE). The yellow, magenta and cyan dyes all contain at least one heterocyclic group and/or have at least one bond selected from the group consisting of $-\text{SO}-$ or $-\text{SO}_2-$. The yellow and magenta dyes are azo dyes and the cyan dye is a phthalocyanine dye. Yabuki also teaches that the oxidation potential of the yellow dyes is higher than 0.8 V (vs SCE). The ink can be prepared by dissolving or dispersing the dye in an aqueous medium. Yabuki further teaches an ink jet recording method comprising ejecting the above ink set onto a recording medium. See col. 3, line 63 – col. 4, line 2, dye of General Formula (M-1), dye of General Formula (C-1), col. 5, lines 55-58, dye of General Formula (Y-1), col. 6, lines 35-37 and 61-62, col. 9, lines 25-35, the dyes on beginning in col. 25-col. 58, col. 60, lines 52-60, examples 1 and 3, Table 1, Table 2b, Table 4 and claims 1, 3, 4, 6, 8 and 12. The ink set as taught by Yabuki appears to anticipate the present claims.

15. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishizuka et al. (US 2004/0024085).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Ishizuka et al. teach an ink composition comprising colored fine particles containing an oil soluble polymer and an oil-soluble dye having an oxidation potential higher than 1.0 V (vs SCE) dispersed in an aqueous medium. The oil-soluble dye can be a magenta dye, a cyan dye or a yellow dye. The yellow, magenta and cyan dyes all contain at least one heterocyclic group and/or have at least one bond selected from the group consisting of $-SO-$ or $-SO_2-$. The yellow and magenta dyes are azo dyes and the cyan dye is a phthalocyanine dye. Ishizuka et al. also teach that the yellow, magenta and cyan inks be used together as an ink set for full color printing. Ishizuka et al. further teach an ink jet recording method comprising ejecting the above ink set onto a recording medium. See paras. 0012-0019, paras. 0030-0031, para. 0036, the dyes on pages 8-17, paras. 0087-0088, the dyes on pages 24-32, para. 0154, the dyes on pages 36-39, para. 0228, para. 0386, examples 1, 2 and 4, Tables 1 and 4 and claims 1, 2 and 4. The ink set as taught by Ishizuka et al. appears to anticipate the present claims.

The only limitation in the claims not found by the examiner is the ratio k_1/k_2 of the accelerated fading rate constant (k_1) of an image drawn by using said constituent ink alone to the accelerated fading rate constant (k_2) of a mixed color image drawn by using all the constituent inks constituting said ink set in equivalent amounts with the same density measurement light as in the measurement of k_1 is 0.7. However, this limitation is considered inherent because there does not appear to be any reason why the cited reference would not contain an ink set with applicants claimed ratio since the dyes of the above U.S. Patent and copending Application's are the same structure as those claimed (and disclosed) by applicants.

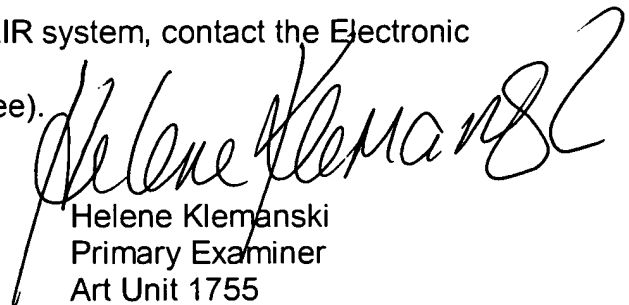
Conclusion

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Helene Klemanski
Primary Examiner
Art Unit 1755


HK
January 23, 2006